



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/633,837

08/07/2000

Donald V. Smart

06457-017002

6753

26171

7590

03/13/2003

FISH & RICHARDSON P.C.  
1425 K STREET, N.W.  
11TH FLOOR  
WASHINGTON, DC 20005-3500

EXAMINER

JACKSON, CORNELIUS H

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/633,837

Applicant(s)

SMART, DONALD V.

Examiner

Cornelius H. Jackson

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 40-111 is/are pending in the application.
- 4a) Of the above claim(s) 94-97 and 107-111 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 40-93 and 98-106 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.



PAUL IP  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgment***

1. Acknowledgment is made that applicant's Amendment, filed on 16 October 2002, has been entered. Upon entrance of the amendment claims 40, 55, and 86-88 were amended and claims 94-111 were added. Claims 40-111 are now pending.

### ***Election/Restrictions***

2. Newly submitted claims 94-97 and 107-111 directed to inventions that are independent or distinct from the invention originally claimed for the following reasons: the product as claimed can be used in a materially different process of using that product.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 94-97 and 107-111 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Drawings***

3. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 16 October 2002 have been disapproved because they introduce new

Art Unit: 2828

matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of computer 11.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 40-93 and 98-106 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 40, 55, 86-88 and 98 are indefinite due to the recitation of "through use of a processor". This is indefinite, since the claims do not specify the relationship of the processor with respect to any other element. Also it is unclear as to how many processors are used and whether the processor for the presetting is different from the processor for selecting, etc. Claims 41-54, 56-85, 89-93 and 99-106 are rejected on the basis of depending on an indefinite base claim.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 40-93 and 98-106 are rejected under 35 U.S.C. 103(a) to the extent understood as being unpatentable over Emmons, Jr. et al. (5,197,074). Emmons, Jr. et al. teaches a method of operating a pulsed laser system comprising a laser source **22** and a switch **12**, method comprising: presetting, through use of a processor, a pre-selected pulse shape/energy (time interval) to be produced by the laser source **see col. 4, lines 39-63 and col. 5, lines 27-64**, selecting, through use of a processor, independently of the pre-selected pulse shape, a time interval (pulse shape) between at least two successive transmissions of the pulses onto the workpiece **see col. 6, line 49-col. 7, line 3** and pulsing the pulsed laser system, through use of a processor, by closing the switch for a fixed, predetermined period of time prior to each emission period, **col. 4, lines 63-68 and col. 5, lines 1-15**. As for the limitation of pre-selecting the pulse shape and/or pulse energy based on the known properties of a target, it would have been obvious to one of ordinary skill in the art at the time the invention was made to pre-select the output of the pulse shape and/or pulse energy of the pulsed laser system based on the known properties of the target material to be processed to ensure the material processed correctly, e.g., to ensure the material is not over/under processed.

In regards to claims 55, 86, 87, 88 and 98, Emmons, Jr. et al. teach all the stated limitations, **see col. 4, lines 39-62 and the rejection to claim 40 above**.

In regard to claims 41-43 and 56-58, Emmons, Jr. et al. teaches pre-selecting the pulse width, pulse energy, and peak power, **see claim 1**.

Art Unit: 2828

In regard to claims 44-49, 59-64, 69-85, 89-93 and 99-106, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

In regard to claims 50-51 and 65-66, Emmons, Jr. et al. teaches computer-controlled system, **column 6, lines 4-17 and column 7, lines 32-42**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the computer solve the complicated mathematical equations involved in finding the correct processing values to pre-select the output of the pulse shape and/or repetition rate of the pulsed laser system based on the known properties of the target material to be processed.

In regard to claims 52-53 and 67-68, Emmons, Jr. et al. teaches a laser rod **1**, a laser pump **22**, a reflector **16** interposed between the pump and the rod, an output reflector **18**, and a switch **12** interposed between the laser rod and the output reflector, when closed, causes energy to be stored in the laser rod for a fixed desired time of the time it takes for an acoustic wave of sufficient power to prevent feedback to propagate through the acousto-optic medium. When open, allows energy to be emitted from the laser rod during an emission period, **column 4, lines 63-68 and column 5, lines 1-15**.

Art Unit: 2828

***Response to Arguments***


8. Applicant's arguments with respect to claims 40-93 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703) 306-5981. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

  
chj  
March 6, 2003

  
PAUL IP  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800